Nota entomològica

Lasius neglectus Van Loon, Boomsma & Andrásfalvy, 1990 (Hymenoptera, Formicidae), a potential pest ant in Spain.

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The palaearctic species of the ant genus *Lasius* (s.str.) were revised by Seifert (1992). In that revision the number of taxa was increased substantially from the previous work by Wilson (1955). Specifically, eight species are now recognised in the Iberian Peninsula, where only four were known before. Here we add a ninth species to the list. The material comes from three localities.

1. El Montanyà, Seva (Barcelona, Spain), 650 m a.s.l., August 1998; workers. This is a suburban zone with international flux of visiting people. Houses are widely spaced and the irrigated gardens have plenty of nonnative vegetation (shrubs and trees). The ants were observed several years ago and have been perceived as a growing problem, specially at an intolerable high level during August 1998.

   The ants occupy several hectares. No other ant species were detected at the heavily infested zone. Inhabitants of affected houses report huge numbers of ants living inside electrical conductions and prowling everywhere during summer outside to the gardens, towards trees and bushes. Ants apparently may exert an enormous pressure on trees through consumption of aphid honeydew since several trees have been killed. In summer the ant activity in gardens is extensive. Temporary refuges are made at the base of trees. Even a daily control by spraying huge quantities of insecticide inside electrical junction boxes during July and August was unable to diminish the pest. Every morning one working hour was spent collecting enormous quantities —thousands— of dead ants under junction boxes at the more heavily infested house. Nuptial flights have never been detected, nor have sexuals been recovered from the swimming pool. Multiple egg-laying queens, eggs, very small larvae, and larvae and pupae of sexuals were present on 19 April 1999. All the biological characteristics agree with what is known for this species (Van Loon et al., 1990). At the limits of the infested zone other ant species were noted (*Camponotus aethiops* (Latreille), *Camponotus piceus* (Leach), *Formica rufibarbis* Fabricius, *Formica gagates* Latreille, *Formica gerardi* Bondroit, *Lusius grandis* Forel,

Lasius mixtus (Nylander), *Lasius myops* Forel, *Lasius emarginatus* (Olivier), *Leptothorax unifasciatus* (Latreille), *Messor capitatus* (Latreille}, *Myrmica scabrinodis* Nylander, *Plagiolepis pygmea* (Latreille), *Solenopsis sp.*, *Tapinoma nigerrimum* (Nylander), *Tetramorium caespitum* (L.) and *Tetramorium ruginode* Stitz).

It has been reported that ants are attracted to electrical fields produced by equipment (MacKay et al., 1992) but I cannot affirm that *L. neglectus* shows the same response or is merely using electrical conductions as a safe nesting place.

2. Bellaterra (Barcelona), 90 m a.s.l., 3 April 1997; workers, queens. Nests were first detected under stones and broken bricks in an abandoned field. The colony is highly polygynous. Workers tend aphids on virtually every tree. Alates were abundant on 15 May 1997. Ants have been noted also in other parts of the university campus, nesting at the base of street lights and feeding on aphids from various tree species and extrafloral nectaries of *Prunus laurocerasus* and *Medicago sativa*. Until now the ants have not been perceived as a pest but for a temporary summer invasion (1998) of the university snack bar.

3. City of Barcelona, a private address, 20 m a.s.l., 10 May 1990 (O. Escolà leg.). Workers were attracted to mature grapes in the kitchen. Two other worker samples from the same house, without supplementary data, are from August 1991 and June 1993. No comments on exceptional ant abundance were declared by the inhabitants.

There is no doubt about the potential pest status of *L. neglectus* in the Barcelona area. Severe measures should be taken to eliminate or reduce these (and possibly other) populations of this ant in Spain, since they can have a strongly negative effect on the local ant fauna (Van Loon et al., 1990) by virtually eliminating all other ant species in the heavily infested zones, this in addition to the heavy toll imposed on vegetation via aphids.

L. turcicus Santschi (1921) is a name that could have also been applied to those samples. *L. turcicus* is probably monogynous (unpublished data by S. Aron and J.J. Boornsma strongly suggest monogyny from electrophoresis-gels, per. com.) and workers are on average bigger. No other remarkable morphological differences existing between those two taxa according to Seifert (1992). In that work he synonymised *L. neglectus* with *L. turcicus* but recently, in his excellent guide (1996) he reverts to considering *L. neglectus* as a good species. I concur. Morphology also supports specific segregation (Seifert, per. com.). Genetic work (sensu Boomsma et al., 1990) will be needed to fully clarify the issue of species identity.

The small sexuals also make it easy to separate *L. neglectus* from any other iberian *Lasius*, Mean ± s.d. head length of males 0.65 ± 0.01 mm (n = 10). Mean ± s.d. head length of females 1.1 8 ± 0.01 mm (n = 10). *L. neglectus* was known only from Budapest (autochthonus type) from where it has been found in recent years in other houses, parks and museums. Those ants are aggressive

Lasius neglectus workers can be differentiated of *L. alienus* Förster (1850) by the following characteristics:

	***L. neglectus* Van Loon Boomsma & Andrásfalvy (after Seifert, 1992, polygynous colonies) (mean ± s.d.)**	***L. alienus* Förster (after Seifert 1992)**
Mandibular dents	7.35 ± 0.46	8.1 ± 0.31
Average pubescence distance on clypeus (PDCL)	31.24 ± 6.38	17.2 ± 2.9
Hairs projecting from occipital profile to hind margin of eye; only one half of the heat (nBH)	10.02 ± 2.21	4.7 ± 1.6
Standing gula hairs; only one half of the head (nUH)	2.12 ± 0.83	0.8 ± 0.8
Genal hairs	1-4	0 (occassionally 1)

as they have been seen fighting wasps that visit aphids on *Pinus nigra* (A. Andrásfalvy. com. per.). This species has also been detected near Toulouse and along the french Mediterranean coast (S. Aron. per com.). I strongly suspect that two other localities (Orange, France and Tiflis, Georgia) from which polygynous colonies were reported (Seifert, 1992), belong also to *L. neglectus*. Preserved dry material has been deposited at the Museu de Zoologia of Barcelona.

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